

BIDHAN CHANDRA KRISHI VISWAVIDYALAYA

Regional Research Station (Red & Laterite Zone)
P.O. Jhargram, Dist. West Bengal, Pin. – 721 507

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Mob.- 9474716406PI, RKVY Project, RRS, Jhargram

Ref. No. : RKVY/JGM/020/17-18

Dated: 18.01.2018

Ref. e-Tender ID: 2018_BCKV_150313_1

Notice Inviting E-Tender(7th Time)

The Principal Investigator, RKVY project “Infrastructural support for establishment of laboratory for testing soil and water quality” (Project Code: SCH 12068)” at RRS, BCKV, Jhargram, West Bengal is inviting e-tender from competent and bonafide vendors /parties/ distributors/dealers/agents/manufacturers having registration of GST for supply of following items to the RRS, BCKV, Jhargram within 12th February, 2018 at 5.00 pm as per specifications appended against each items.

- i) Preparation of bids: the tender should be submitted under two bid system (i.e. technical and financial bid) with validity for a period of six months.
- ii) Submission of e-tender: the tender shall be submitted on line within 12th February, 2018 at 5.00 pm. Technical quotations may also be uploaded through online.
- iii) Opening of the e-tender: the technical bid will be opened by the Central Purchase Committee, BCKV, duly consigned for this purpose and PI &CoPIs will evaluate the technical bids. After evaluating/scrutinizing, the financial offer/bid of technically qualified vendors will be opened.
- iv) Price: The price of all the equipment and items, including the imported ones, should be quoted in net per unit (including taxes and duties, etc). However university will provide valid DSIR and authorization certificate to the clearing agent, if required. Quotation must include essential accessories like gas cylinder, regulator, computer etc (as mentioned foreach equipment) from branded company, in Indian currency only, even if the main equipment is quoted in foreign currency. Without essential accessories tender will be considered as incomplete. Quoted rates must be FOR DESTINATION (including packing, insurance and delivery charges up to laboratory at RRS, BCKV, Jhargram, West Bengal) with satisfactory installation and demonstration.
- v) EMD: Vendors are required to pay the requisite amount of Rs. 5000 (Rupees five thousand) only as EMD draft. Scanned copy of the requisite draft must be uploaded as supporting document during submission of e-tender. Without EMD quotations will not be considered for technical of financial comparison. Draft must be in favour of ‘Bidhan Chandra Krishi Viswavidyalaya’ payable at Kalyani (IFSC: SBIN0001082).
- vi) Supporting documents:

a) Bid papers should accompany authorization certificate from original manufacturer, trade license, GST registration, etc

b) Scanned copy (self attested) of the original supporting document in favour of the specification –claim for each items must have to be uploaded separately.

c) User list along with certificate from reputed users also need to be uploaded for each items.

d) Scanned copy of supporting document of assured after sale service in Eastern India and availability of spare parts need to be uploaded.

Price bid of the vendors will be compared only if technical specificity as appended against each item is fulfilled. The Viswavidyalaya reserves the right to accept or reject any tender without showing reason.

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Sl No	Name of the Item/ Equipment:Instrument	Detail Specification	Qty
1	Rotospin - Rotary Mixer	Rotospin - Rotary Mixer RPM 5-50 RPM , Timer 0-99 hrs/1-59 min, Bar for 20 X 15 ml tube Bar for 12 X 50 ml tube Plastic coated spring clips, Serial rotation of tubes for extraction ,diffusion	1(One)
2	GPS	Hand held GPS with 9 channel receiver	1(One)
3	Desiccators with vacuum pump	Desiccators (Vacuum) Polycarbonate Top and Chemical Resistant Polypropylene bottom; Silicon 'O' ring to make the desiccators airtight; Holds vacuum of 740 mm of Hg (29") for a period of 24 hours; Fitted with stopcock made of poly-propylene,Oil-free	1(One)
4	Magnetic stirrer	Polished stainless steel Dimension of heating plate- Electronic speed and time control, Acid & Alkali resistant glass ceramic top, Easy to clean & Maintain, Rugged Aluminium die cast housing, Reflective bright white colour enhances solution visibility. Three display windows for : Temperature, RPM and Time, Speed Range : 50-1500 RPM, Maximum stirring bar length : 80mm, Heat output : 450 W, Temperature range : ambient - 350°C, Adjustable safety cut off : 50-400°C, Control accuracy of PT100 : $\pm 1k$, Dimensions of hot plate body : 273x160x102mm	1(One)
5	Centrifuge	Rotor type: Angular Stepless speed regulator with zero start interlock Digital speed indicator Dynamic brake 0-99 minutes digital countdown timer Imbalance detector with cutoff	One (1)

		<p>Safety lid interlock to prevent cover opening during centrifugation</p> <p>Max Speed 17,000 rpm</p> <p>Maximum RCF 21,200 x g</p> <p>Timer 0.5 to 99 minutes</p> <p>Dimensions (WxDxH; mm): 400 x 500 x 455</p> <p>Electrical: 230V~, 50Hz</p> <p>Quote centrifuge machine (without rotor head) and rotor head (only) separately</p> <p>Rotor Capacity: 6 x 200ml, 8 x 100ml, 12 x 50ml (ONE EACH TYPE ROTOR to be quoted separately)</p>	
6	Fume chamber	<p>(DUCTED with Stand and Blower Module)</p> <p>Size: 4'x2'x2'</p> <p>For digestion of different types of sample for analysis, including soil, water, wastewater, food products, plant tissue, feed stuffs, oil, coal, organic & mineral samples for analysis of metals and nonmetals in solid and liquid samples.</p> <p>Fume Chamber must withstand tri-acid fume constantly</p> <p>Should be corrosion resistant, plastic and polyurethane painted metal</p> <p>Non-Dissipative PVC w/ Polypropylene Work-surface</p> <p>6" OD duct Port</p> <p>Fan system module, Adjustable Speed, 480 CFM impeller</p> <p>Swing Vane Manometer- Air Velocity Meter</p> <p>Airflow Alarm Monitor</p> <p>Stand 35"Height, epoxy Powder Coated Steel with Caster</p>	1(One)
7	Multifunction printer	<p>PRINT</p> <p>Printing Method: Monochrome Laser Beam Printing</p> <p>Print Speed (Simplex; A4/LTR): Up to 27 ppm (pages per minute)</p> <p>Print Resolution: 600 x 600dpi</p> <p>Print Quality with Image Refinement Technology: 1200 (equivalent) x 1200dpi</p> <p>Available Paper Size for Auto Duplex Print: A4, Letter, Legal, Officio , B-Officio, M-Officio, Indian Legal, Foolscape</p> <p>COPY</p> <p>Copy Speed (Simplex; A4/LTR): Up to 27cpm (copies per minute)</p> <p>Copy Resolution: 600 x 600dpi</p> <p>First Copy Time (FCOT): Approx. 9.0 secs (A4/LTR)</p> <p>Maximum Number of Copies: Up to 99 copies</p> <p>SCAN</p> <p>Scan Resolution: Optical: Up to 600 x 600dpi</p> <p>Driver Enhanced: Up to 9600 x 9600dpi</p> <p>Color Depth: 24-bit</p> <p>Pull Scan: Yes, USB</p>	1(One)
8	Temperature controlled centrifuge	<p>Bench Top</p> <p>Rotor Type: Fixed angle</p> <p>Capacity: 50 ml X 8</p> <p>Digital Speed Indicator and Timer Maximum Speed > 15000 RPM</p> <p>Temperature range: -5°C to 40 °C</p>	1(One)

		<p>Should have imbalance detection system Should have pre-cooling system Digital countdown timer 0-99 min & Continuous run Programs: 99 System with auto lock facility, with safety for over speed / imbalance / temperature Limit / door detector; Two years warranty Power Supply 220-240V 50 Hz</p>	
9	Bottletop dispenser	<p>Volume Range (ml) 10.0 – 100.0 Increment (ml) 2 Accuracy \pm % 0.5 \pmml 0.5 CV \pm % 0.1 \pmml 0.1</p>	1(One)
10	Ultra-pure water purification system (Type-I and II)	<p>Prefiltration System: Three stage pretreatment system with 10, 5 & 1 micron spun filters 10” with activated carbon with prefilter 5 μm and hardness stabilizer to remove particles, free chlorine and hardness formers to protect the RO-membrane. Feed Water Conductivity upto 1500 micro Siemens Output Water Quality should be : Flow Rate : 12 Ltrs./Hr. @ 25°C Dispensing Rate : 1.0 L / min. Type 1 Water Quality : 18.2 MΩ- cm @ 25°C Type 2 Water Quality : 10 – 15 MΩ- cm @ 25°C TOC : 1-5 ppb Bacteria : < 1 CFU/ml Endotoxin : <0.005 EU/ml pH : Effectively Neutral RNase : <0.003 ng/mL DNase : <0.4 pg/μL It should have dual wavelength UV (185/254 nm) lamp Feed –water: Potable tap water Display: TOC TEMPERATURE, conductivity, volume dispensing, alarm and tank water level indicator. Consumable: Should supply with additional 6 pre-filter set other than the one which included with main system. Must Quote separately for consumables (cartridges, filters etc.) for TWO YEAR for trouble free working. Warranty: For TWO years plus two years extended (total 4 years)</p>	1(One)
11	Laboratory Stirrers	<p>PMDC motor for powerful stirring Chuck for easy interchangeability of shaft Reliable performance even in continuous use Stirring shaft SS 316; Retort Rods SS 304 Stepless electronic speed regulator with digital display Stirring Shaft: 6 x 250 mm Impeller: PITCHED FAN Motor: AC/DC 1/20 HP Speed (rpm): Min 800 and Max 4000 Stirring Capacity: Max 7 Ltrs</p>	1(One)
12	Desktop Computer	<p>Desktop PC Intel Core i3, RAM-4GB, Keyboard, Hard disk –1 TB, Ethernet – 10/100/1000, DOS, 19.5” LED Monitor, CD/DVD Writer Keyboard, wireless mouse; Quick heal Antivirus (three years validity); UPS: APC 600VA</p>	1(One)
13	CHNS analyzer	<p>Fully automated computer controlled element analyzer capable of rapid quantitative determination of elements viz. Carbon (C), Hydrogen (H), Nitrogen (N) and Sulfur (S) in wide array of organic matrices, soils, feed, plant samples etc.applications (Both Macro & Micro analysis with an option of Multi Valve Control) and it should allow to reduce helium gas consumption by switching from helium to nitrogen or argon gas, when the instrument is in Stand-By Mode.Option to add external software controlled functions for automated valve for gas sampling. The system should be</p>	1(One)

		<p>upgradable to a FPD detector for trace sulfur analysis and options for coupling of Isotope Ratio Mass Spectrometer (IRMS) system.</p> <p>The instrument should have following features:</p> <ol style="list-style-type: none"> 1. Handle variety of sample types like solid, liquid, volatile and Gas samples 2. It should be Built-in helium and oxygen pressure reducers and gauges preventing air diffusion into the pneumatic circuit, Combustion/reduction furnaces with electronic temperature control offering full compliance with the most demanding safety regulations, Oxygen determination in the same furnace is used in pyrolysis condition, Electronic Flow Control (EFCt) of helium or argon carrier/reference gas and oxygen gas. 3. Measuring Range: 0.01% (100 ppm) - 100% for solid samples & 1-10 ppm (low level) for liquid samples (using TCD Detector). 4. Sample size: 0.01 mg to 100 mg or more 5. Furnaces: Maximum temperature of 1100 °C with 15-years warranty under standard operational conditions 6. Detector: Maintenance free Thermal Conductivity Detector (TCD) with 15-years warranty under standard operational conditions. 7. Analysis time: Less than 7 min for CHN and Less than 10 min for CHNS. 8. Auto sampler: Automatic loading of samples with 30 or more positions in a single tray 9. Software: Window based operating software controlling the instrument operations, recording data, performing calculations, diagnostic recording like leak testing and condition monitoring, and manage calibration procedures 10. Sample Analysis Kit : CHNS kits for 2000 samples analysis should be quoted 11. Gas requirements: Ultra high purity He and O₂ Gas cylinder for 3 each, Nitrogen/Argon Gas cylinder for 2 nos. And Regulator for one each (He, O₂ & N₂/Ar). 12. Gas Purification Panel with Filters for all the gases 13. Branded PC with Laser Jet Printer (B/W) – 01 Set 14. Branded 5 KVA on line UPS with 1 hrs Battery back-up– 01 Set 15. Branded 2 Ton Split AC – 01 no. 16. <u>Consumables & Chemicals:</u> COPPER OXIDE -50 g, QUARTZ WOOL - 5 g, ELECTROLYTIC COPPER -80 g, VANADIUM PENTOXIDE - 1 g, Knurled Screws kit – 3, Universal Tin Containers (set of 100) – 01, Universal Tin Container mega box (set of 1000) – 01, Universal “soft” Silver Containers (set of 100) – 01, Forceps – 01, Spatula for Container Filling, Cleaning Device for Quartz Reactor – 01, Empty Quartz Reactor (set of 2) – 02 Nos. 17. Warranty: 3 Years and AMC for 2 years after 3 years warranty. <p>Weighing requirement: Semi microgram balance with 0.1 mg readability</p>	
14	Temperature controlled Shaker (Bench Top Orbital)	<p>Temperature range: +5 deg to 50°C</p> <p>Temperature accuracy: +/- 0.1°C</p> <p>Shaking Speed Range: 20 – 300 rpm</p>	1(One)

	<p>Timer: 30 min --99 Hr 59 min</p> <p>Microprocessor based PID control/ Auto tuning / Calibration Over temperature limiter / Door opening alarm Digital LED display for temperature (0.1 Deg Resolution) Speed, and shaking motion Adjustable fan speeds. Brush less DC motor High velocity fan for rapid thermal recovery and uniformity</p> <p>Platform size 450 x 450 mm</p> <p>(No. of flasks x Volume): 12x250ml, 28x100ml, 42x50ml</p> <p>Load in Tray ≤ 10 Kg</p> <p>Safety features: Self protecting cut off indication System should have logical safety feature Time setting function for automated run/off Door opening alarm Electrical requirements: 230 V, 50/60 Hz.</p> <p>Accessories: Platform for shaker Spring wire Rack Rubber mat and sticky pad.</p> <p>Warranty. 2 Years.</p>	
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